

## **IN THE CLAIMS:**

A complete listing of the claims is set forth below:

1. **(Previously Presented)** A method for generating a price schedule for one or more products, the method comprising:

generating a transition graph comprising a plurality of paths, each path comprising a plurality of states, each state having a price value, an inventory value, and a state value, the transition graph being generated by repeating the following for a plurality of stages until a final stage is reached:

determining the price value of a successor state;

calculating the inventory value of the successor state using the price value and the inventory value of a predecessor state; and

calculating the state value of the successor state using the price value and the inventory value of the predecessor state;

selecting a path according to the state values of the states; and

determining a price schedule from the path.

2. **(Original)** The method of Claim 1, further comprising quantizing the inventory value of each successor state.

3. **(Original)** The method of Claim 1, further comprising quantizing the price value of each successor state.

4. **(Previously Presented)** The method of Claim 1, wherein selecting the path according to the state values comprises:

determining a state at the final stage having a state value; and

determining a path comprising a state of an initial stage and the state having the optimal state value.

5. **(Original)** The method of Claim 1, further comprising eliminating a successor state in response to a constraint.

6. **(Withdrawn)** The method of Claim 1, further comprising:

computing an elasticity curve; and

computing the inventory value of each successor state using the elasticity curve.

7. **(Previously Presented)** The method of Claim 1, wherein:

each state has a certainty value; and

selecting the path comprises determining a state at the final stage having a certainty value of a predetermined value.

8. **(Original)** The method of Claim 1, further comprising:

defining a plurality of locations;

estimating a demand forecast for the locations; calculating an expected number of unrealized sales at each location;

adjusting the demand forecast in response to the expected number; determining a sales forecast from the demand forecast; and

adjusting the inventory value of the successor state in response to the sales forecast.

9. **(Previously Presented)** A system for generating a price schedule for one or more products, the system comprising:

a transition graph generator operable to generate a transition graph comprising a plurality of paths, each path comprising a plurality of states, each state having a price value, an inventory value, and a state value, the transition graph generator operable to generate the transition graph by repeating the following for a plurality of stages until a final stage is reached:

determining the price value of a successor state;

calculating the inventory value of the successor state using the price value and the inventory value of a predecessor state; and

calculating the state value of the successor state using the price value and the inventory value of the predecessor state; and

an optimizer coupled to the transition graph generator and operable to:

select a path according to the state values of the states; and

determine a price schedule from the path.

10. **(Original)** The system of Claim 9, wherein the transition graph generator is operable to quantize the inventory value of each successor state.

11. **(Original)** The system of Claim 9, wherein the transition graph generator is operable to quantize the price value of each successor state.

12. **(Previously Presented)** The system of Claim 9, wherein the optimizer is operable to select the path according to the state values by:

determining a state at the final stage having a state value; and

determining a path comprising a state of an initial stage and the state having the state value.

13. **(Original)** The system of Claim 9, wherein the transition graph generator is operable to eliminate a successor state in response to a constraint.

14. **(Withdrawn)** The system of Claim 9, further comprising an elasticity module coupled to the transition graph generator and operable to compute an elasticity curve, the transition graph generator operable to compute the inventory value of each successor state using the elasticity curve.

15. **(Previously Presented)** The system of Claim 9, wherein:  
each state has a certainty value; and  
the optimizer is operable to select the path by determining a state at the final stage having a certainty value of a predetermined value.

16. **(Original)** The system of Claim 9, wherein the transition graph generator is operable to:  
define a plurality of locations;  
estimate a demand forecast for the locations;  
calculate an expected number of unrealized sales at each location;  
adjust the demand forecast in response to the expected number;  
determine a sales forecast from the demand forecast; and  
adjust the inventory value of the successor state in response to the sales forecast.

17. **(Previously Presented)** Computer software for generating a price schedule for one or more products, the software embodied in one or more computer-readable media and when executed operable to:

generate a transition graph comprising a plurality of paths, each path comprising a plurality of states, each state having a price value, an inventory value, and a state value, the transition graph being generated by repeating the following for a plurality of stages until a final stage is reached:

determining the price value of a successor state;

calculating the inventory value of the successor state using the price value and the inventory value of a predecessor state; and

calculating the state value of the successor state using the price value and the inventory value of the predecessor state;

select a path according to the state values of the states; and

determine a price schedule from the path.

18. **(Previously Presented)** The software of Claim 17, further operable to quantize the inventory value of each successor state.

19. **(Previously Presented)** The software of Claim 17, further operable to quantize the price value of each successor state.

20. **(Previously Presented)** The software of Claim 17, further operable to select the path according to the state values by:

determining a state at the final stage having a state value; and

determining a path comprising a state of an initial stage and the state having the state value.

21. **(Previously Presented)** The software of Claim 17, further operable to eliminate a successor state in response to a constraint.

22. **(Previously Presented)** The software of Claim 17, further operable to:  
compute an elasticity curve; and  
compute the inventory value of each successor state using the elasticity curve.

23. **(Previously Presented)** The software of Claim 17, wherein:  
each state has a certainty value; and  
wherein the software is further operable to select the path by determining a state at the final stage having a certainty value of a predetermined value.

24. **(Previously Presented)** The software of Claim 17, further operable to:  
define a plurality of locations;  
estimate a demand forecast for the locations;  
calculate an expected number of unrealized sales at each location; adjust the demand forecast in response to the expected number;  
determine a sales forecast from the demand forecast; and  
adjust the inventory value of the successor state in response to the sales forecast.

25. **(Previously Presented)** A system for generating a price schedule for one or more products, the system comprising:

means for generating a transition graph comprising a plurality of paths, each path comprising a plurality of states, each state having a price value, an inventory value, and a state value, the transition graph being generated by repeating the following for a plurality of stages until a final stage is reached:

determining the price value of a successor state;

calculating the inventory value of the successor state using the price value and the inventory value of a predecessor state; and

calculating the state value of the successor state using the price value and the inventory value of the predecessor state; and

means for selecting a path according to the state values of the states and for determining a price schedule from the path.

26. **(Withdrawn)** A method for generating a price schedule, comprising:

generating a transition graph comprising a plurality of paths, each path comprising a plurality of states, each state having a price value, an inventory value, and a state value, the transition graph being generated by repeating the following for a plurality of stages until a final stage is reached:

computing an elasticity curve;

determining the price value of a successor state;

calculating the inventory value of the successor state using the elasticity curve, the price value, and the inventory value of a predecessor state;

adjusting the inventory value of the successor state by defining a plurality of locations, calculating an expected number of unrealized sales at each location, and adjusting the inventory value of the successor state in response to the expected number;

quantizing the inventory value and the price value of the successor state;

and

calculating the state value of the successor state using the price value and the inventory value of the predecessor state;

selecting an optimal path according to the state values of the states by determining a state at the final stage having an optimal state value and determining a path comprising a state of an initial stage and the state having the optimal state value; and

determining a price schedule from the optimal path.



27-49. **(Canceled)**

50. **(Withdrawn)** A method for determining a sales forecast, comprising:

- defining a plurality of locations;
- estimating an inventory at each location;
- estimating a demand at each location;
- calculating an expected number of unrealized sales at each location using a difference between the demand at the location and the inventory at the location; and
- determining a sales forecast in response to the expected number.

51. **(Withdrawn)** The method of Claim 50, wherein:

- estimating the inventory at each location comprises randomly populating the locations with a plurality of inventory units; and
- estimating the demand at each location comprises randomly populating the locations with a plurality of demand units.

52. **(Withdrawn)** The method of Claim 50, wherein:

- estimating the inventory at each location comprises calculating a probability of each location receiving a number of inventory units according to a binomial distribution; and
- estimating the demand at each location comprises calculating a probability of each location receiving a number of demand units according to the binomial distribution.

53. **(Withdrawn)** The method of Claim 50, wherein:

estimating the inventory at each location comprises calculating a probability of each location receiving a number of inventory units according to an incomplete beta-function; and

estimating the demand at each location comprises calculating a probability of each location receiving a number of demand units according to the incomplete beta-function.

54. **(Withdrawn)** A system for determining a sales forecast, comprising:

a database operable to store a plurality of definitions defining a plurality of locations; and

a server coupled to the database and operable to:

estimate an inventory at each location;

estimate a demand at each location;

calculate an expected number of unrealized sales at each location using a difference between the demand at the location and the inventory at the location; and

determine a sales forecast in response to the expected number.

55. **(Withdrawn)** The system of Claim 54, wherein the server is operable to:

estimate the inventory at each location by randomly populating the locations with a plurality of inventory units; and

estimate the demand at each location by randomly populating the locations with a plurality of demand units.

56. **(Withdrawn)** The system of Claim 54, wherein the server is operable to:  
estimate the inventory at each location by calculating a probability of each location receiving a number of inventory units according to a binomial distribution; and  
estimate the demand at each location by calculating a probability of each location receiving a number of demand units according to the binomial distribution.

57. **(Withdrawn)** The system of Claim 54, wherein the server is operable to:  
estimate the inventory at each location by calculating a probability of each location receiving a number of inventory units according to an incomplete beta- function;  
and  
estimate the demand at each location by calculating a probability of each location receiving a number of demand units according to the incomplete beta-function.

58. **(Withdrawn)** Logic for determining a sales forecast, the logic encoded in media and when executed operable to:  
define a plurality of locations;  
estimate an inventory at each location;  
estimate a demand at each location;  
calculate an expected number of unrealized sales at each location using a difference between the demand at the location and the inventory at the location; and  
determine a sales forecast in response to the expected number.

59. **(Withdrawn)** The logic of Claim 58, further operable to:

estimate the inventory at each location by randomly populating the locations with a plurality of inventory units; and

estimate the demand at each location by randomly populating the locations with a plurality of demand units.

60. **(Withdrawn)** The logic of Claim 58, further operable to:

estimate the inventory at each location by calculating a probability of each location receiving a number of inventory units according to a binomial distribution; and

estimate the demand at each location by calculating a probability of each location receiving a number of demand units according to the binomial distribution.

61. **(Withdrawn)** The logic of Claim 58, further operable to:

estimate the inventory at each location by calculating a probability of each location receiving a number of inventory units according to an incomplete beta-function; and

estimate the demand at each location by calculating a probability of each location receiving a number of demand units according to the incomplete beta- function.

62. **(Withdrawn)** A system for determining a sales forecast, comprising:

means for defining a plurality of locations;

means for estimating an inventory at each location; means for estimating a demand at each location;

means for calculating an expected number of unrealized sales at each location using a difference between the demand at the location and the inventory at the location; and

means for determining a sales forecast in response to the expected number.

63. **(Withdrawn)** A method for determining a sales forecast, comprising:

defining a plurality of locations;

estimating the inventory at each location by calculating a probability of each location receiving a number of inventory units according to an incomplete beta-function;

estimating the demand at each location by calculating a probability of each location receiving a number of demand units according to the incomplete beta- function;

calculating an expected number of unrealized sales at each location using a difference between the demand at the location and the inventory at the location; and

determining a sales forecast in response to the expected number.

64. **(Withdrawn)** A method for generating a price schedule, comprising:

generating a transition graph comprising a plurality of paths, each path comprising a plurality of states, each state having a plurality of values comprising a state value, the transition graph being generated by repeating the following for a plurality of stages until a final stage is reached;

calculating the values of a successor state using the values of a predecessor state; and

quantizing the values of each successor state;

selecting an optimal path according to the state values of the states; and

determining a price schedule from the optimal path.

65. **(Withdrawn)** The method of Claim 64, wherein the values comprise a price value.

66. **(Withdrawn)** The method of Claim 64, wherein the values comprise an inventory value.

67. **(Withdrawn)** The method of Claim 64, wherein selecting the optimal path according to the state values comprises:

determining a state at the final stage having an optimal state value; and

determining a path comprising a state of an initial stage and the state having the optimal state value.

68. **(Withdrawn)** The method of Claim 64, further comprising eliminating a successor state in response to a constraint.

69. **(Withdrawn)** The method of Claim 64, further comprising:

computing an elasticity curve; and

computing an inventory value of each successor state using the elasticity curve.

70. **(Withdrawn)** The method of Claim 64, wherein:

each state has a certainty value; and

selecting the optimal path comprises determining a state at the final stage having a certainty value of a predetermined value.

71. **(Withdrawn)** The method of Claim 64, further comprising:

defining a plurality of locations;

calculating an expected number of unrealized sales at each location; and  
adjusting a value of the successor state in response to the expected number.